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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,423	07/06/2001	John E. Sell	NUFO005	4970
7590 02/25/2004			EXAMINER	
JAMES Y. GO BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP 12400 WILSHIRE BOULEVARD 7TH FLOOR LOS ANGELES, CA 90025			VY, HUNG T	
			ART UNIT	PAPER NUMBER
			2828	

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/900,423

Applicant(s)

SELL ET AL.

Examiner

Hung T Vy

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.


- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the amendment filed on 10/06/2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19, 21-28 and 30-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19, 21-28 and 30-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02/12/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2828

DETAILED ACTION

1. In response to the communications filed on 10/06/2003, claims 1-19, 21-28, and 30-38 are pending in this application.

Claim Rejections - 35 U.S.C. § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 11-13, and 33-38 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Flanders, U.S. patent No. 6,366,592 in view of Yoshikawa et al., U.S. Patent No. 5,497,937.

Regarding claims 1-3, 11, 33 -38, Flanders discloses a laser apparatus comprising an external cavity laser (See column 3, line 55) and laser source therein (422) (See fig.10), and a hermetically sealable container (110) (see column 3, line 51-52) configured to enclose external cavity laser. Flanders discloses the hermetically sealable container is hermetic and constructed from a mechanically and temperature stable substance (See column 3, line 50-56) and external cavity laser is tunable (see column 1, line 55-57), But Flanders does not disclose an activated carbon drain.

Art Unit: 2828

However, Yoshikawa et al. discloses activated carbon drain positioned within said hermetically sealable container to absorb outgassing compounds (see column 2, line 5-60 and column 7, line 51-50). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Flandres to have activated carbon drain as taught by Yoshikawa et al. because those skilled in the art will recognize that such modification and variations can be made without departing from the spirit of the invention.

Regarding claims 12-13, it is inherent that the apparatus, wherein said insert atmosphere is a gas in order to improve the stable and long life for device. Further, Flanders disclose an optical fiber (112) extending into said hermetically sealable container (see fig. 1) and positioned to receive optical output from said external cavity, and a fiber feed through, configured to hermitically seal said optical fiber (see fig. 1).

Regarding claims 4-9, Flandres discloses the apparatus, wherein said external cavity laser in hermetically sealable container (110), a gain medium (422) having a first and second output facets, second output facet having anti-reflective coating thereon (See column 6, line 61-67 and column 7, line 1-7), external cavity laser comprises a grid generator (716) and a tuning assembly operatively coupled to said channel selector (714) and configured to adjust said channel selector (See fig. 10).

3. Claims 14-19, 21-28, and 30-32 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Flanders, U.S. patent No. 6,366,592 in view of Wieser et al., U.S. Patent No. 6,282,222 and in view of Broutin et al., U.S. Patent No. 6,516,010.

Art Unit: 2828

Regarding claims 14-19, Flandres discloses the apparatus, wherein said external cavity laser in hermetically sealable container (110), a gain medium (422) having a first and second output facets, second output facet having anti-reflective coating thereon (See column 6, line 61-67 and column 7, line 1-7), external cavity laser comprises a grid generator (716) and a tuning assembly operatively coupled to said channel selector (714) and configured to adjust said channel selector (See fig. 10), but Flandres does not disclose a moisture trap. However, Wieser et al. discloses a moisture trap (38) positioned within said hermetically sealed container to absorb moisture within said hermetically sealed container (See Fig. 1 and column 7, line 20-24 or column 8, line 30-42), vacuum baking at least one outgassing component of said laser prior to said hermitically sealing (see column 10, line 38-43) and Broutin et al. discloses TEC (52) for a heat source thermally. For the benefit of absorb moisture and a heat source thermally, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Flandres to have activated carbon drain and heat source as taught by Yoshikawa et al. and Broutin et al. because those skilled in the art will recognize that such modification and variations can be made without departing from the spirit of the invention.

Regarding claim 21, Wieser et al. discloses the laser apparatus, wherein said inert atmosphere is gas selected from Ne, Ar Kr, Xe (See abstract)

With respect to claims 22-28, and 30-32, the methods for fabricating a laser are considered as product by process steps.

Art Unit: 2828

4. Claim 10 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Flanders, U.S. patent No. 6,366,592 in view of Yoshikawa et al., U.S. Patent No. 5,497,937 and Wieser et al., U.S. Patent No. 6,282,222.

Regarding claim 10, Wieser et al. discloses apparatus wherein, the activated carbon drain to absorb outgassing compounds that occur during operation of the laser source (see column 2, line 5-60 and column 7, line 51-50).

Citation of Pertinent References

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Palanisamy et al. discloses Intergrated Heat sinking Packages Using Low Temperature Co-Fired Ceramic Metal Circuit Board Technology, U.S. Patent No. 6,455,930.

The patent to Crane, Jr. et al. discloses Optoelectronic Packaging Assembly, U.S. Patent No. 6,663,294.

Response to Arguments

6. Applicant's arguments with respect to claims 14-19, 21-28, and 30-32 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments with respect to claims 1-9, 11-13, and 33-38 have been considered but they are not persuasive. Applicant's agreements "Yoshikawa also fails

Art Unit: 2828

to teach or suggest an activated carbon drain to absorb outgassing compounds” are not persuasive because Yoshikawa discloses the absorption substance absorbs moisture as activated carbon (see column 5, column 19). An activated carbon drain to absorb outgassing compounds is nothing new as Tamura et al. (U.S. Pub. 2001/0028670) teaches in Fig. 9 a container 29 coupled to the housing and a absorb material 28.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Vy whose telephone number is (571) 272-1954. The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (571) 272-1941. The fax numbers for the

Art Unit: 2828

organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



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Hung T. Vy
Art Unit 2828
February 12, 2004